AMENDMENTS TO THE CLAIMS:

Kindly cancel claims 1-2, 16-31, 55-73 and 83-85, and kindly amend claims 3, 5, 7-8, 10, 32, 34-39, 74-75, 77-78 and 81 as follows:

Listing of claims:

1-2. (canceled)

3. (currently amended) A method of ingesting one or more data objects into a persistent archive ~~as claimed in claim 1,~~ of a collection of data objects tangibly embodied on a processor readable medium, the method comprising:

transforming a representation of the one or more data objects into a self-describing, infrastructure-independent representation of the one or more data objects; and

archiving the self-describing, infrastructure-independent representation of the one or more data objects with a self-describing, infrastructure-independent representation of the logical structure of the collection.

4. (original) The method of claim 3 further comprising performing the following steps prior to the transforming step:

forming a self-describing, infrastructure-independent representation of a logical structure of the collection; and

forming a self-describing, infrastructure-independent representation of the data objects.

5. (currently amended) A method of instantiating a persistent archive ~~as claimed in claim 1~~ of a collection of data objects tangibly embodied on a processor readable medium, the method comprising:

retrieving from the persistent archive a self-defining representation of a logical structure for the collection;

creating on a medium a query-able mechanism in accordance with the logical structure;

retrieving from the persistent archive a self-describing, infrastructure-independent representation of one or more data objects; and

loading the data objects into the query-able mechanism.

6. (original) The method of claim 5 further comprising:

retrieving from the persistent archive a self-describing, infrastructure-independent representation of a presentation mechanism for the one or more data objects;

querying the query-able mechanism for one or more data objects; and

presenting the one or more data objects using the presentation mechanism.

7. (currently amended) A method of presenting one or more data objects from a persistent archive ~~as claimed in claim 1~~ of a collection of data objects tangibly embodied on a processor readable medium, the method comprising:

retrieving from the persistent archive a self-describing, infrastructure-independent representation of a presentation mechanism for the one or more data objects;

retrieving from the persistent archive a self-describing, infrastructure-independent representation of the one or more data objects; and

presenting the one or more data objects using the presentation mechanism.

8. (currently amended) A method of migrating a persistent archive ~~as claimed in claim 1,~~ of a collection of data objects tangibly embodied on a processor readable medium, the archive being maintained on a first medium, the method comprising:

retrieving the persistent archive maintained on the first medium;

optionally redefining the logical structure of the collection or the self-describing, infrastructure-independent representation of the one or more data objects; and

storing the persistent archive as optionally redefined in the previous step onto a second medium.

9. (original) A processor readable medium tangibly embodying the method steps of any of claims 3-8.

10. (currently amended) A system for maintaining a persistent archive ~~as claimed in claim 1~~ of a collection of data objects tangibly embodied on a processor readable medium, the method comprising:

an ingestion subsystem for ingesting the one or more data objects into the archive by transforming a representation of the one or more data objects into the self-defining representation

of the one or more data objects, and adding the one or more transformed data objects to the archive; and

an instantiation subsystem for retrieving from the archive the self-describing, infrastructure-independent representation of a logical structure for the collection, creating a query-able mechanism on [[a]] the processor readable medium in accordance with the logical structure, and loading the data objects into the query-able mechanism.

11. (original) The system of claim 10 further comprising a migration subsystem for retrieving the persistent archive from a first medium, optionally redefining the logical structure of the collection or the self-describing, infrastructure-independent representation of the one or more data objects in the collection, and storing the persistent archive as optionally redefined onto a second medium.

12. (original) The system of claim 10 further comprising a presentation subsystem for retrieving from the archive a self-describing, infrastructure-independent presentation mechanism, retrieving from the archive one or more data objects, and presenting the one or more data objects using the self-describing, infrastructure-independent presentation mechanism.

13. (original) The system of claim 10 further comprising a presentation subsystem for retrieving from the archive a self-describing, infrastructure-independent presentation mechanism, querying the query-able mechanism for one or more data objects, and presenting the one or more data objects using the self-describing, infrastructure-independent presentation mechanism.

14. (original) The system of claim 10 wherein the instantiation system includes a plurality of drivers each configured for retrieving data from or storing data to a processor readable medium.

15. (original) The system of claim 11 wherein the migration system includes a plurality of drivers each configured for retrieving data from or storing data to a processor readable medium.

16-31. (canceled)

32. (currently amended) A method of ingesting one or more data objects into a knowledge-based persistent archive ~~as claimed in claim 16,~~ of a collection of data objects tangibly embodied on a processor readable medium, the method comprising:

transforming a representation of the one or more data objects into a self-describing, infrastructure-independent representation of the one or more data objects;

verifying the transformation of the data objects using knowledge relevant to the collection; and

archiving the verified self-describing, infrastructure-independent representation of the one or more data objects with a self-describing, infrastructure-independent representation of a logical structure of the collection and a self-describing, infrastructure-independent representation of the knowledge relevant to the collection.

33. (original) The method of claim 32 wherein the transforming step comprises tagging attributes of the data objects, and the verifying step comprises tagging occurrences of data object attributes and their corresponding values and verifying that these occurrences are consistent with the knowledge relevant to the collection.

34. (currently amended) A method of instantiating a knowledge-based persistent archive ~~as claimed in claim 16~~ of a collection of data objects tangibly embodied on a processor readable medium, the method comprising:

retrieving from the persistent archive a self-defining, infrastructure-independent representation of a logical structure for the collection;

retrieving from the persistent archive a self-describing, infrastructure-independent representation of knowledge relevant to the collection;

creating on a medium a query-able mechanism in accordance with the logical structure;

retrieving from the persistent archive a self-describing, infrastructure-independent representation of one or more data objects;

verifying that the one or more data objects are consistent with the knowledge relevant to the collection; and

loading the data objects into the query-able mechanism.

35. (currently amended) The method of claim 34 further comprising:

retrieving from the persistent archive a self-describing, infrastructure-independent representation of a presentation mechanism for the one or more data objects;

querying the query-able mechanism for one or more data objects using ~~the~~ relationships between concepts relevant to the collection;

verifying that the one or more data objects are consistent with the knowledge relevant to the collection; and

presenting the one or more data objects using the presentation mechanism.

36. (currently amended) A method of validating a knowledge-based persistent archive ~~as claimed in claim 16,~~ of a collection of data objects tangibly embodied on a processor readable medium, the method comprising:

retrieving from the archive a self-describing, infrastructure-independent representation of knowledge relevant to the collection; and

using the knowledge to validate the collection.

37. (currently amended) A method of transforming raw data records into a form capable of ingestion into a knowledge-based persistent archive ~~as claimed in claim 16~~of a collection of data objects tangibly embodied on a processor readable medium, which archive includes as the knowledge base a self-describing, infrastructure independent, or executable representation of a transformation procedure, the method comprising:

retrieving from the archive the self-describing, infrastructure independent, or executable representation of the transformation procedure;

executing the procedure to transform the raw records into a self-describing, infrastructure independent representation of data objects; and

adding the self-describing, infrastructure independent representation of the data objects to the archive.

38. (currently amended) A method of transforming a self-describing, infrastructure independent representation of data objects into a form capable of instantiation onto a query-able mechanism, the data objects being from a knowledge-based persistent archive ~~as claimed in claim 16~~ of a collection of data objects tangibly embodied on a processor readable medium,

which archive includes as the knowledge base a self-describing, infrastructure independent, or executable representation of a transformation procedure, the method comprising:

retrieving from the archive the self-describing, infrastructure independent, or executable representation of the transformation procedure;

retrieving from the archive the self-describing, infrastructure independent representation of the data objects; and

executing the procedure to transform the self-describing, infrastructure independent representation of the data objects into a form capable of instantiating onto a query-able mechanism.

39. (currently amended) A method of transforming a self-describing, infrastructure independent representation of data objects into occurrences of attribute or element values, the data objects being from a knowledge-based persistent archive ~~as claimed in claim 16~~ of a collection of data objects tangibly embodied on a processor readable medium, which archive includes as the knowledge base a self-describing, infrastructure independent, or executable representation of a transformation procedure, the method comprising:

retrieving from the archive the self-describing, infrastructure independent, or executable representation of the transformation procedure;

retrieving from the archive the self-describing, infrastructure independent representation of the data objects; and

executing the procedure to transform the self-describing, infrastructure independent representation of the data objects into the occurrences of attribute or element values.

40. (original) The method of claim 39 further comprising using the occurrences to validate the collection.

41. (original) The method of claim 39 further comprising using the occurrences to identify exceptional conditions which are added to the knowledge base of the archive.

42. (withdrawn) A method of forming occurrences of attribute or element values comprising:

receiving data records tagged with attribute or element names; and

forming from the tagged data records occurrences of attribute or element values.

43. (withdrawn) The method of claim 42 further comprising using the occurrences to confirm closure of attribute or element selection for a collection formed from the tagged data records.

44. (withdrawn) The method of claim 42 further comprising using the occurrences to obtain useful information about a collection formed from the tagged data records.

45. (withdrawn) The method of claim 44 further comprising using the occurrences to determine redundancy in a collection formed from the tagged data records.

46. (withdrawn) The method of claim 42 further comprising using the occurrences to determine transformation procedures for a collection formed from the tagged data records.

47. (withdrawn) The method of claim 42 further comprising using the occurrences to identify knowledge to be added to a knowledge base of a knowledge based persistent archive formed or to be formed from the tagged data records.

48. (withdrawn) The method of claim 47 further comprising using the occurrences to identify exceptional conditions to be added to a knowledge base of a knowledge based persistent archive formed or to be formed from the tagged data records.

49. (withdrawn) The method of claim 42 further comprising using the occurrences to check the internal consistency of a collection formed or to be formed from the tagged data records.

50. (withdrawn) The method of claim 42 further comprising transforming the occurrences into an inverted attribute index.

51. (withdrawn) The method of claim 42 further comprising transforming the occurrences into tagged data records.

52. (withdrawn) The method of claim 42 further comprising transforming the occurrences into a form capable of being ingested into a persistent archive.

53. (withdrawn) The method of claim 42 further comprising transforming the occurrences into a form capable of being instantiated onto a query-able mechanism.

54. (withdrawn) The methods of any of claims 32-53 tangibly embodied on a processor readable medium.

55-73. (canceled)

74. (currently amended) A method of automatically placing one or more data objects from a persistent archive ~~as claimed in claim 55~~ of a collection of data objects tangibly embodied on a processor readable medium into a form suitable for instantiation onto a query-able mechanism comprising:

retrieving from the archive a self-describing, infrastructure-independent or executable specification of one or more transformations relevant to the collection;

retrieving from the archive a representation of one or more data objects in the collection; and

executing the specification to automatically place the one or more data objects into a form suitable for instantiation onto the query-able mechanism.

75. (currently amended) A method of automatically validating a collection of data objects within a persistent archive ~~as claimed in claim 55~~ of a collection of data objects tangibly embodied on a processor readable medium, comprising:

retrieving from the archive a self-describing, infrastructure-independent or executable specification of one or more rules relevant to the collection; and

executing the specification to automatically validate the collection.

76. (original) The method of claim 75 further comprising validating the collection by performing the following substeps:

producing occurrences of attribute or element values; and

determining that the occurrences are consistent with the rules encoded by the specification and any valid exceptions.

77. (currently amended) A method of automatically presenting one or more data objects from a persistent archive ~~as claimed in claim 55~~ of a collection of data objects tangibly embodied on a processor readable medium comprising:

retrieving from the archive a self-describing, infrastructure-independent or executable specification of one or more transformations relevant to the collection;

retrieving from the archive a representation of the one or more data objects in the collection; and

executing the specification to automatically place the one or more data objects from the collection in a form suitable for presentation.

78. (currently amended) A method of automatically placing a persistent archive ~~as claimed in claim 55~~ of a collection of data objects tangibly embodied on a processor readable medium into a form suitable for migration to a new medium comprising:

retrieving from the archive a self-describing, infrastructure-independent or executable specification of one or more transformations relevant to the collection; and

executing the specification to automatically place the collection into a form suitable for migration to a new medium.

79. (original) The system of claim 10 further comprising an engine for executing self-describing, infrastructure-independent, or executable specifications.

80. (original) The system of claim 79 further comprising a validation subsystem for validating the collection by commanding the engine to execute at least one self-describing, infrastructure-independent or executable specification encoding one or more rules relevant to the collection.

81. (currently amended) The system of claim 79 further comprising a transformation subsystem for transforming the one or more data objects in the collection by commanding the engine to execute at least one self-describing, infrastructure-independent, or executable specification of one or more transformations relevant to the collection.

82. (original) The methods of any of claims 74-78 tangibly embodied on a processor-readable medium.

83-85. (canceled)